

Listing of Claims to Replace All Prior Versions of Claims in the Application

1. (currently amended) A method of synchronizing data among a plurality of web servers, wherein each of the plurality of web servers is coupled to a common data server, the method comprising:

~~retrieving~~ receiving a scheduled activation time from the data server;

prior to the scheduled activation time, ~~retrieving~~ receiving updated data into staging caches in the plurality of web servers; and

at the scheduled activation time, ~~copying~~ causing the updated data from the staging caches within each of the plurality of web servers to be accessible from an active cache within each of the plurality of web servers.

2. (original) A method as recited in claim 1 further comprising:

comparing a time associated with a clock in each web server to a time associated with a clock in the data server; and

adjusting the scheduled activation time on each web server by the time difference between the clock in the web server and the clock in the data server.

3. (original) A method as recited in claim 1 wherein each web server contains a clock, and wherein the clocks in the plurality of web servers are not synchronized with one another.

4. (original) A method as recited in claim 1 wherein the copying data comprises swapping an active data cache pointer with a staged data cache pointer.

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1 5. (original) A method as recited in claim 1 wherein no
2 communications are required between the individual web servers to synchronize
3 their data.

4
5 6. (original) A method as recited in claim 1 wherein retrieving updated
6 data into staging caches in the plurality of web servers is performed
7 asynchronously.

8
9 7. (original) A method as recited in claim 1 further comprising:
10 after the scheduled activation time, updating data caches in the data server.

11
12 8. (original) A method as recited in claim 1 further comprising:
13 after the scheduled activation time, calculating a next scheduled activation
14 time.

15
16 9. (original) A method as recited in claim 1 further comprising:
17 after the scheduled activation time, updating data caches in the data server
18 and calculating a next scheduled activation time, wherein the updating and
19 calculating are performed by the first web server to initiate a retrieval process after
20 the scheduled activation time.

1 **10. (original)** A method as recited in claim 1 further comprising:
2 if an additional web server is coupled to the data server, then copying data
3 from an active cache in the data server to an active cache in the additional web
4 server.

5
6 **11. (original)** A method as recited in claim 1 further comprising:
7 if one of the plurality of web servers is initialized, then copying data from
8 an active cache in the data server to the active cache in the initialized web server.

9
10 **12. (original)** A method as recited in claim 1 wherein the plurality of
11 web servers comprise a web farm.

12
13 **13. (original)** A method as recited in claim 1 wherein the plurality of
14 web servers comprise a web farm, and wherein the plurality of web servers are
15 load balanced using a domain name service (DNS) round-robin technique.

16
17 **14. (original)** One or more computer-readable memories containing a
18 computer program that is executable by a processor to perform the method recited
19 in claim 1.

20
21 **15. (currently amended)** A system comprising:
22 a plurality of web servers coupled to a common data server, wherein each
23 of the plurality of web servers comprises:
24 a staging cache;
25 an active data cache coupled to the staging cache;

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1 wherein the web server is configured to ~~retrieve~~ receive a scheduled
2 activation time from the data server, and further configured to ~~retrieve~~
3 receive updated data from the data server into the staging cache prior to the
4 scheduled activation time; and

5 wherein the web server is configured to ~~copy~~ cause data from the staging
6 cache to be accessible from the active data cache at the scheduled activation time.

7
8 16. (original) A system as recited in claim 15 wherein each web server
9 contains a clock having an associated time, and wherein each web server is
10 configured to compare the time associated with the clock in the web server to a
11 time associated with a clock in the data server.

12
13 17. (original) A system as recited in claim 16 wherein each web server
14 is further configured to adjust the scheduled activation time on the web server by
15 the time difference between the clock in the web server and the clock in the data
16 server.

17
18 18. (original) A system as recited in claim 15 wherein each web server
19 contains a clock, and wherein the clocks in the plurality of web servers are not
20 synchronized with one another.

21
22 19. (original) A system as recited in claim 15 wherein the web server is
23 further configured to swap an active data cache pointer with a staged data cache
24 pointer.
25

1 **20. (original)** A system as recited in claim 15 wherein each of the
2 plurality of web servers is configured to update data caches in the data server after
3 the scheduled activation time.

4
5 **21. (original)** A system as recited in claim 15 wherein each of the
6 plurality of web servers is configured to calculate a next scheduled activation time
7 after the scheduled activation time.

8
9 **22. (original)** A system as recited in claim 15 wherein the plurality of
10 web servers comprise a web farm.

11
12 **23. (currently amended)** One or more computer-readable media having
13 stored thereon a computer program that when executed performs a method
14 comprising the following steps:

15 ~~retrieving~~ receiving a scheduled activation time from a data server;
16 prior to the scheduled activation time, ~~retrieving~~ receiving updated data into
17 a staging cache in a server;
18 at the scheduled activation time, ~~copying~~ causing data from the staging
19 cache in the server to be accessible from an active cache in the server; and
20 after the scheduled activation time, updating data caches in the data server
21 and calculating a next scheduled activation time.

1 **24. (original)** One or more computer-readable media as recited in claim
2 23 further comprising:

3 comparing a time associated with a clock in each server to a time associated
4 with a clock in the data server; and

5 adjusting the scheduled activation time on each server by the time
6 difference between the clock in the server and the clock in the data server.

7
8 **25. (original)** One or more computer-readable media as recited in claim
9 23 wherein each server contains a clock, and wherein the clocks in the plurality of
10 servers are not synchronized with one another.

11
12 **26. (original)** One or more computer-readable media as recited in claim
13 23 wherein updating data caches in the data server and calculating the next
14 scheduled activation time are performed if another process has not yet updated the
15 data caches or calculated the next scheduled activation time during a current data
16 synchronization cycle.

17
18 **27. (original)** One or more computer-readable media as recited in claim
19 23 further comprising:

20 if the server is initialized, then copying data from an active cache in the
21 data server to the active cache in the initialized server.

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1 **28. (original)** One or more computer-readable media as recited in claim
2 23 wherein the copying data comprises swapping an active data cache pointer with
3 a staged data cache pointer.

4
5 **29. (currently amended)** A method of synchronizing data among a
6 plurality of web servers, wherein each of the plurality of web servers is coupled to
7 a common data server, the method comprising:

8 providing a scheduled activation time from the data server to each of the
9 plurality of web servers;

10 communicating updated data into a staging cache in each of the plurality of
11 web servers prior to the scheduled activation time; and

12 ~~copying~~ causing data from the staging cache in each of the plurality of the
13 web servers to be accessible from an active cache in each of the plurality of the
14 web servers at the scheduled activation time.

15
16 **30. (original)** A method as recited in claim 29 wherein the
17 communicating updated data into a staging cache is performed asynchronously.

18
19 **31. (original)** A method as recited in claim 29 wherein the copying data
20 comprises swapping an active data cache pointer with a staged data cache pointer.

21
22 **32. (original)** A method as recited in claim 29 wherein no
23 communication is required between the web servers to synchronize their data.
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1 **33. (original)** One or more computer-readable memories containing a
2 computer program that is executable by a processor to perform the method recited
3 in claim 29.

4
5 **34. (new)** A method of synchronizing data among a plurality of web
6 servers, wherein each of the plurality of web servers is coupled to a common data
7 server, the method comprising:

8 receiving, by the plurality of web servers, a scheduled activation time from
9 the data server;

10 receiving, by the plurality of web servers, data from the data server to be
11 stored in active caches of the plurality of web servers;

12 updating, by the plurality of web servers, the active caches of the plurality
13 of web servers with the data received from the data server at the scheduled
14 activation time so that the plurality of web servers are updated with the data at
15 substantially the same time.

16
17 **35. (new)** A method according to claim 34 wherein the scheduled
18 activation time is based on a worst-case time needed to copy data from the data
19 server by a web server of the plurality of web servers.